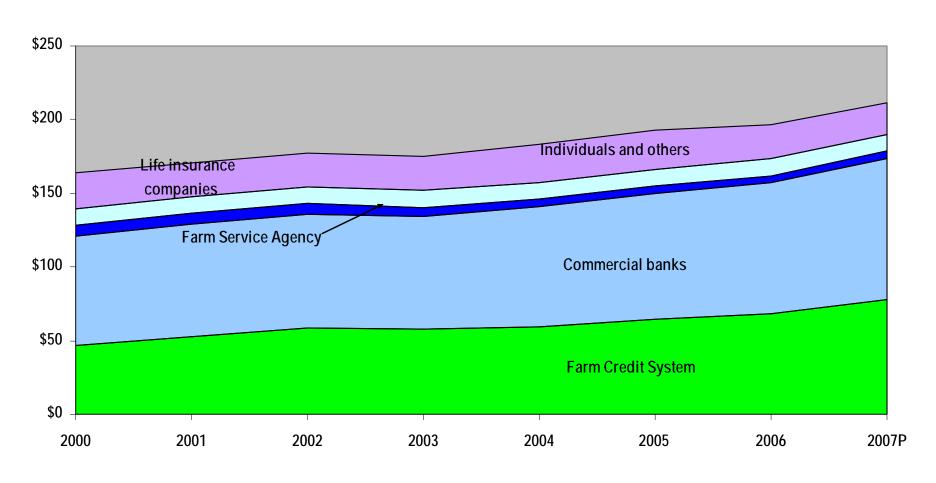
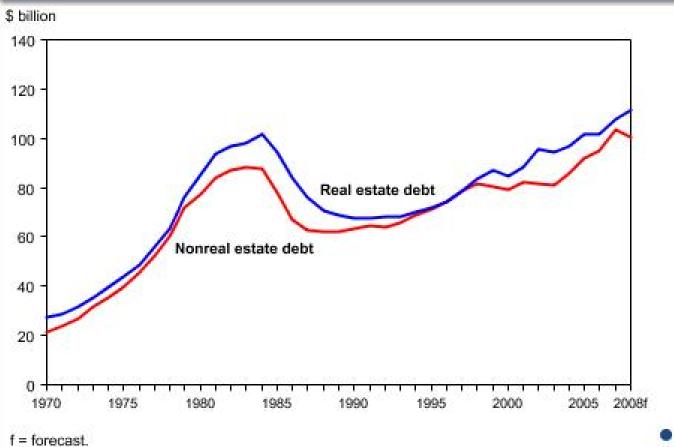
THE CALIFORNIA WATER CRISIS RISK TO THE CALIFORNIA FOOD SYSTEM CDFA BOARD MEETING 1-21-2009

Cornelius "Corny" Gallagher
Chairman
California Banking Association
Ag Lending Committee

SOURCE OF FARM DEBT ERS.USDA.GOV



Farm business debt, 1970-2008f



Source: Economic Research Service, USDA.

U.S. FARM EQUITY (\$ billions)

	2007	2008	2009	2012
SOURCE (EST)	USDA	USDA	FSE	FSE
 Real Estate 	1,912	2,052	2,084	1,826
 Total Assets 	2,210	2,359	2,389	
 Total Debt 	212	212	213	
Equity	\$1,998	\$2,147	\$2,176	
 Net Income 	\$87	\$91	\$74	\$64
• ROA	3.9%	3.9%	3.1%	

http://aic.ucdavis.edu/publications/MOCA_Ch_5.10aPrePrint.pdf

UC AG ISSUES CENTER Dan Sumner, Director

The Measure of California Agriculture, 2006

CHAPTER FIVE AGRICULTURE'S ROLE IN THE ECONOMY

- The direct economic contribution of agriculture
- Additional economic linkages of agriculture
- California agriculture in the global context

Global and National Competitiveness

- California is nearly 19 percent of the US Ag GDP.
- California Ag is one of top ag economies in World.

Broad Economic Impacts

- California farms and processing industries generate 7.3 percent of state's private sector labor force. (This includes part-time workers.)
- This accounted for 5.6% of the California state labor income in 2002.
- For every \$1 billion in farm sales, there are 18,100 jobs created in the state:
 - 10,900 in the farm sector and
 - 7,200 in other industries.

- California farms have a significant direct effect on the state's economy.
- According to the U.S. Bureau of Economic Analysis,
- California's gross state product (GSP), the value added by all industries in the state, was \$1,438 billion in 2003.
- At \$21 billion (Table 5.1), agriculture (farming), forestry, fishing, hunting, and support services accounted for 1.45 percent of the California GSP.

Economic Impact of Ag Production and Processing

Region (%)	California	Central Valley	San Joaquin Valley
Jobs	7.3	24.1	37.8
Labor Income	5.6	18.5	29.9
Value Added	6.5	22.2	34.1

California Agricultural Productivity, 1949-2002 Driven by water

Index (1949=100)

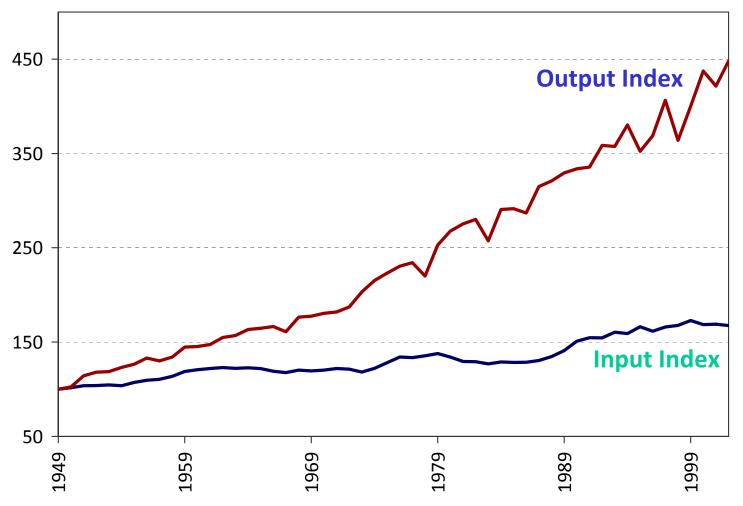
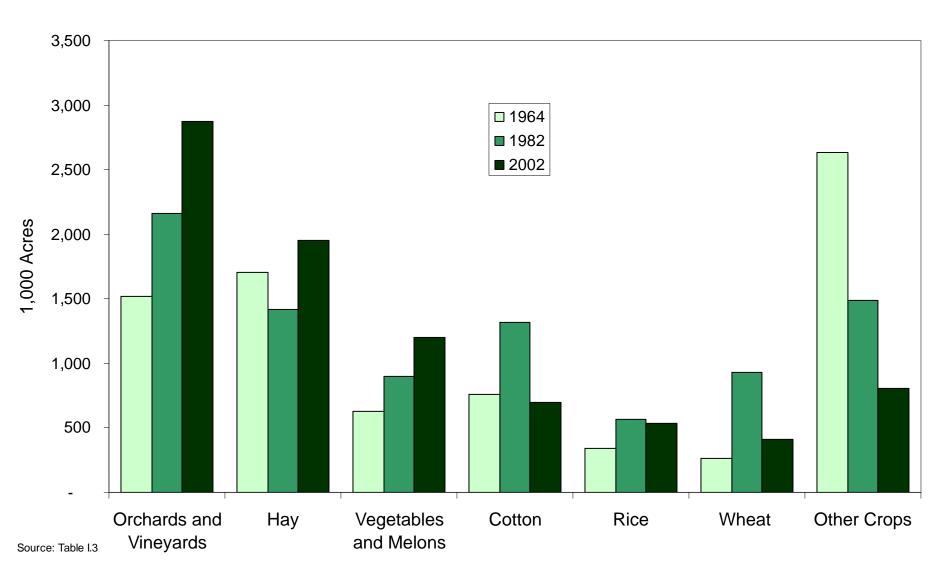


Figure I.7 - California Harvested Cropland by Crop, 1964, 1982, 2002



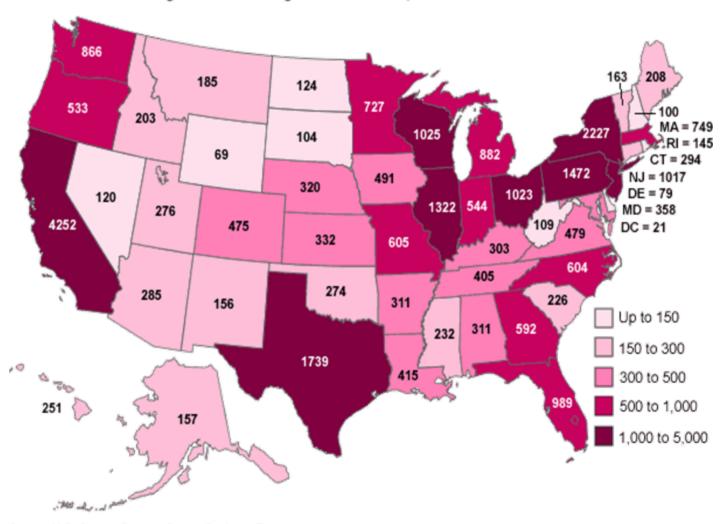


CALIFORNIA DOMINATES U.S. SPECIALTY CROP AGRICULTURE

- Almonds: 100%
- Pistachios: 100%
- Walnuts: 100%
- Processing Tomatoes: 95%
- Figs, Dates, Olives, Kiwi: 100%
- Apricots: 95%
- Plums/Prunes: 97%
- **♦** *Grapes:* 87%
- Vegetables: Very high percentage

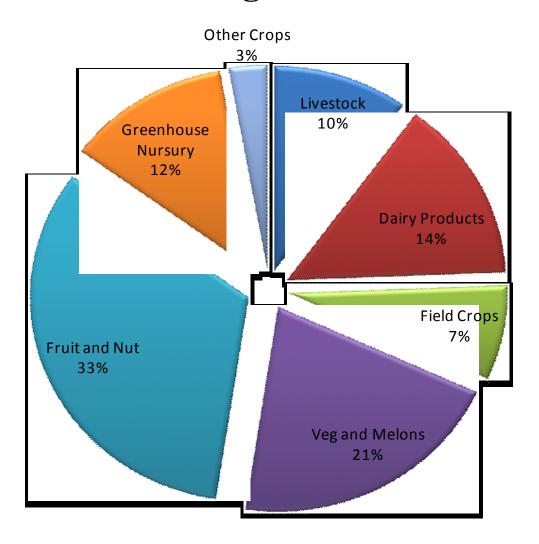
WHERE THE FOOD PROCESSORS ARE

Total food and beverage manufacturing establishments, 2000



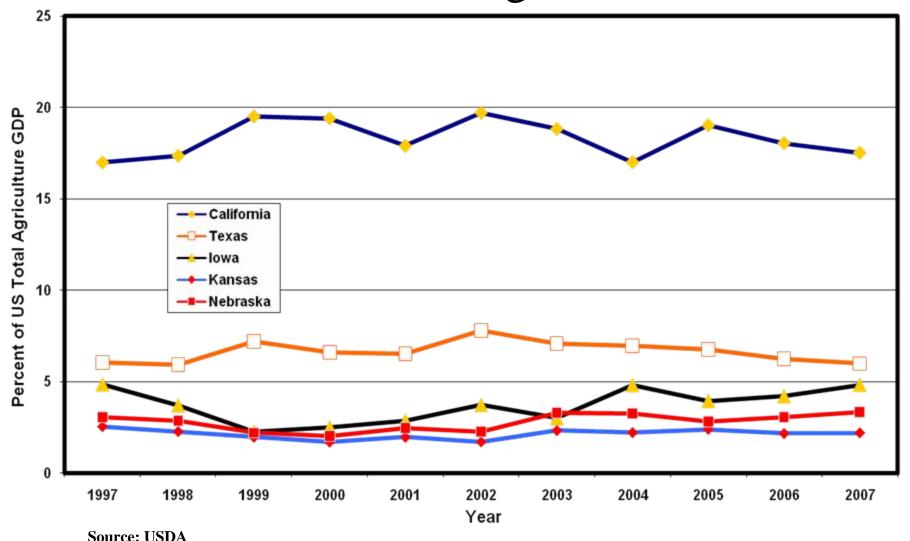
Source: U.S. Census Bureau, County Business Patterns.

Value of Commodity Type as Percentage of Total California Agriculture: 2006



Source: NASS, California Statistics

Top 5 Agricultural Producing States as Percent of Total U.S. Ag Value, 1997-2007



FOCUS ON THE FUTURE

DANIEL M. DOOLEY

VICE PRESIDENT, UNIVERSITY OF CALIFORNIA
UCD Dean's Advisory Council
April 10, 2008

Agricultural Land in California

- Harvested Cropland: 8.5 million acres
 - 34% -- orchards and vineyards
 - -23% -- hay
 - 14% -- vegetables





11/15 fastest growing counties are major agricultural counties

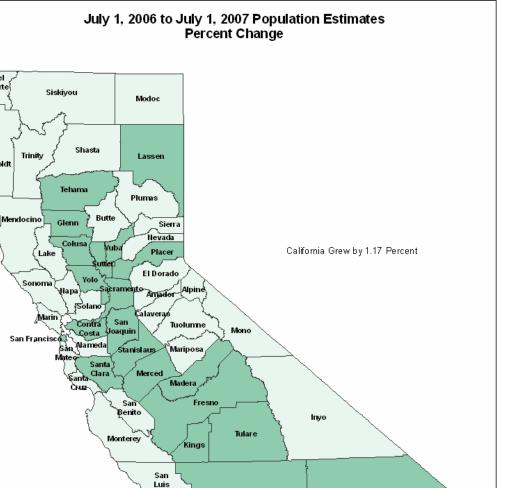
Del Norte

Humboldt

Percent Change

-1.85% to 1.16%

State Average = 1.17% 1.18% to 3.30%



Kem

Los Angeles

Qrange

San Bernardino

Riverside

San Diego

Imperial

Obispo

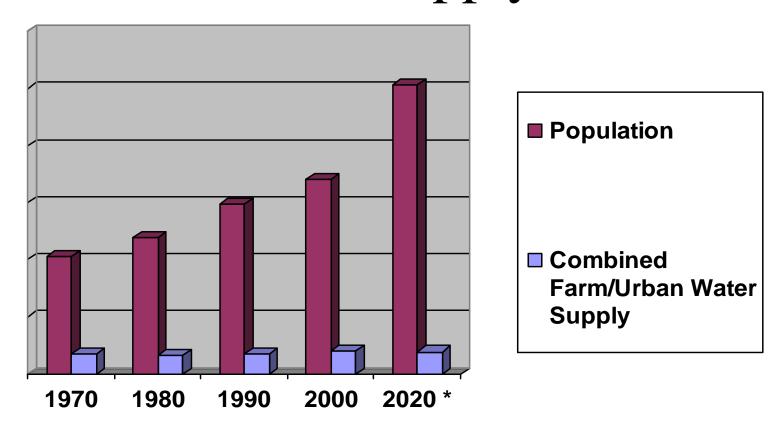
Map prepared by the California Department of Finance, Demographic Research Unit, State Data Center. December 2007

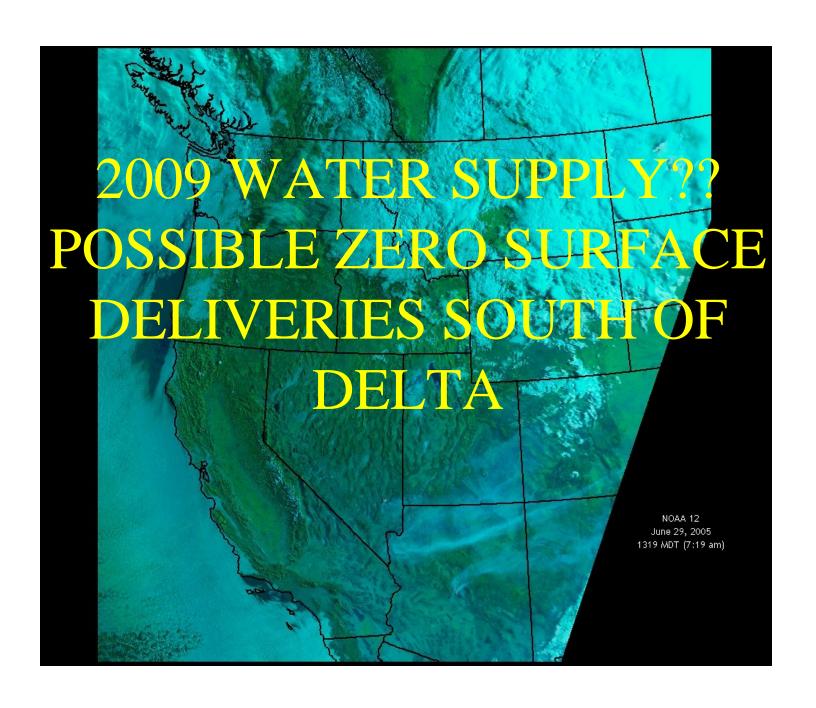
Santa Barbara

Significant Cost Increases in CA Agriculture

- Water
- Regulatory Compliance
- Fertilizer
- Electricity

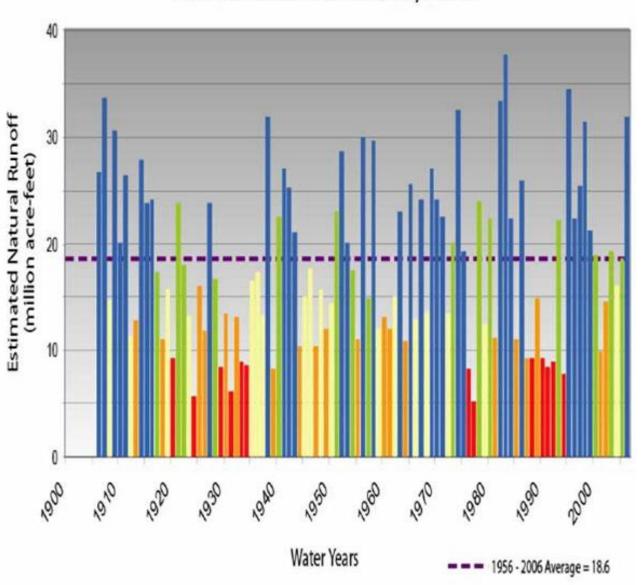
California population growth vs. Water Supply





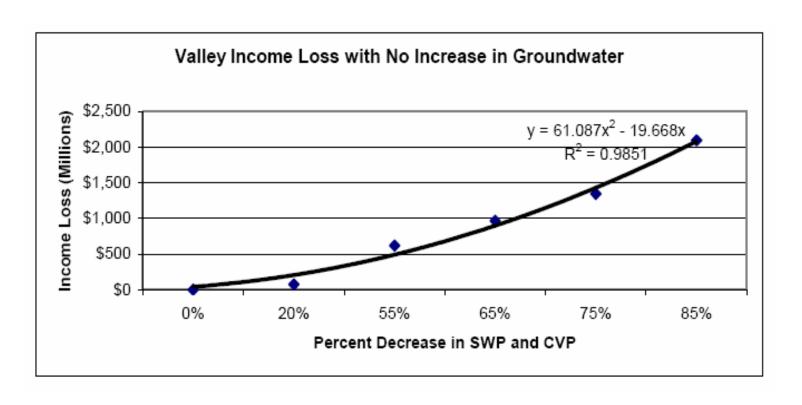
Sacramento River Unimpaired Runoff Since 1906



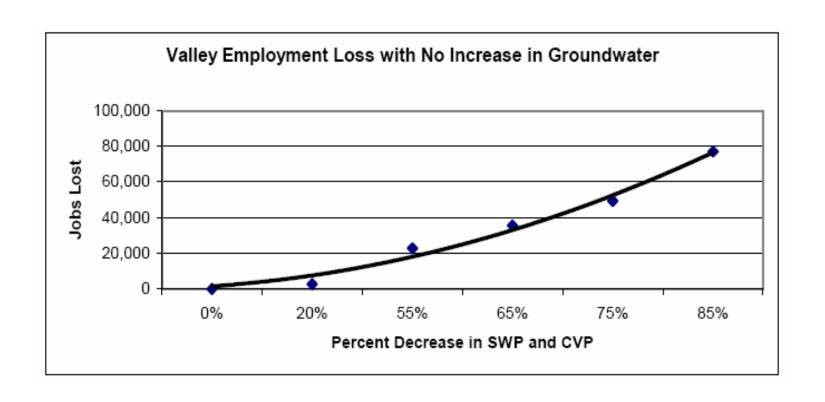


Provisional Draft Report 11-30- 2008

Long Term Impacts with No Groundwater increase

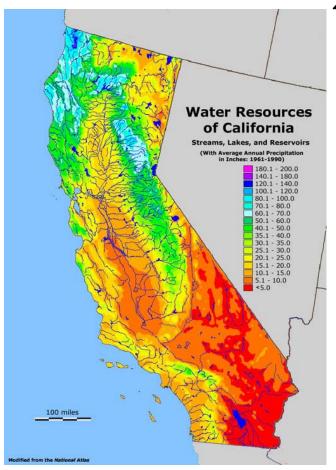


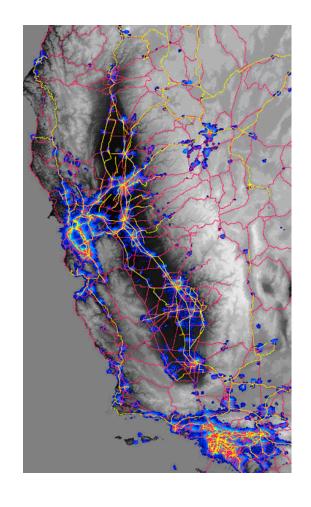
Provisional Draft Report 11-30- 2008 Long Term Impacts with No Groundwater increase and No Markets



California People, Ag and the Environment Need State Water Bank to Work in

2009





Water Quality, Quantity and Mediterranean Crop Production

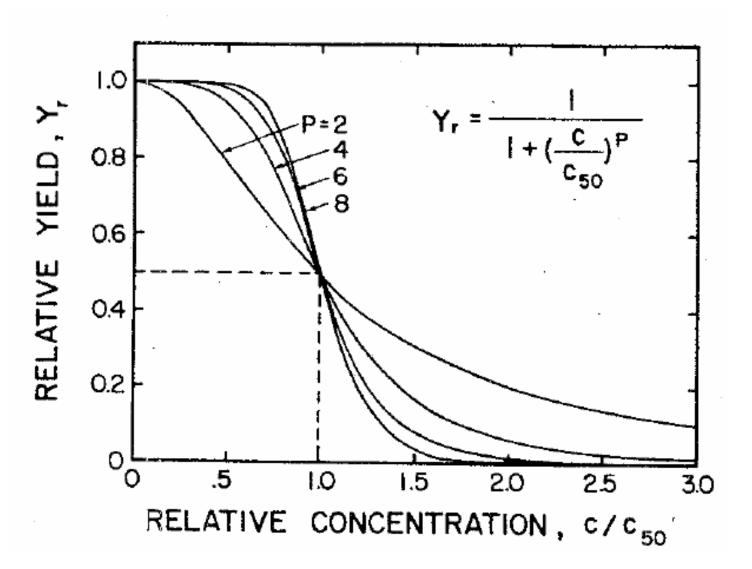
Richard Howitt

Cal-Med Sonoma Workshop October 25 2007

Department of Agricultural and Resource Economics University of California, Davis

Yield Reduction by Salinity

VanGenucten & Maas



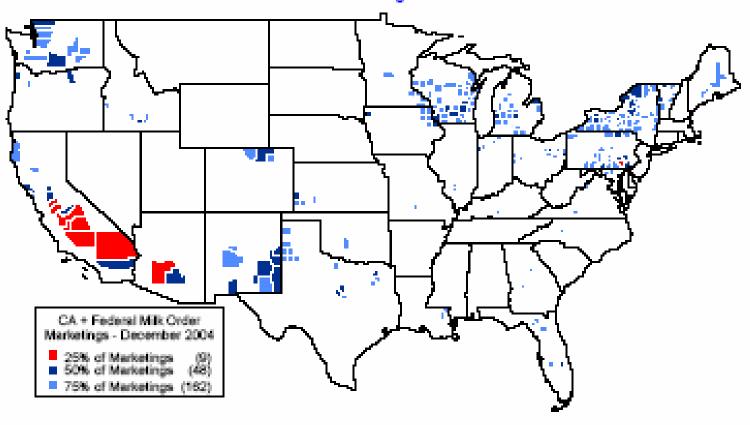
$$Y = Y_m/[1 + (c/c_{50})^p]$$

(Salinity indirectly measured as Electrical Conductivity, EC)



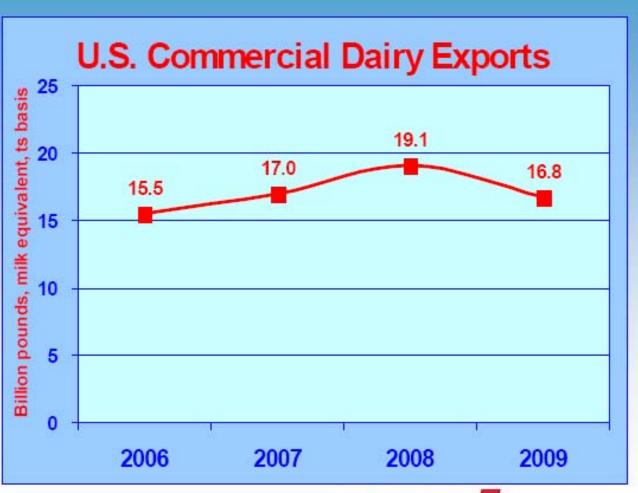
WHERE THE DAIRY COWS ARE

219 Counties Marketed 75% Of All CA + Federal Order Milk During December 2004

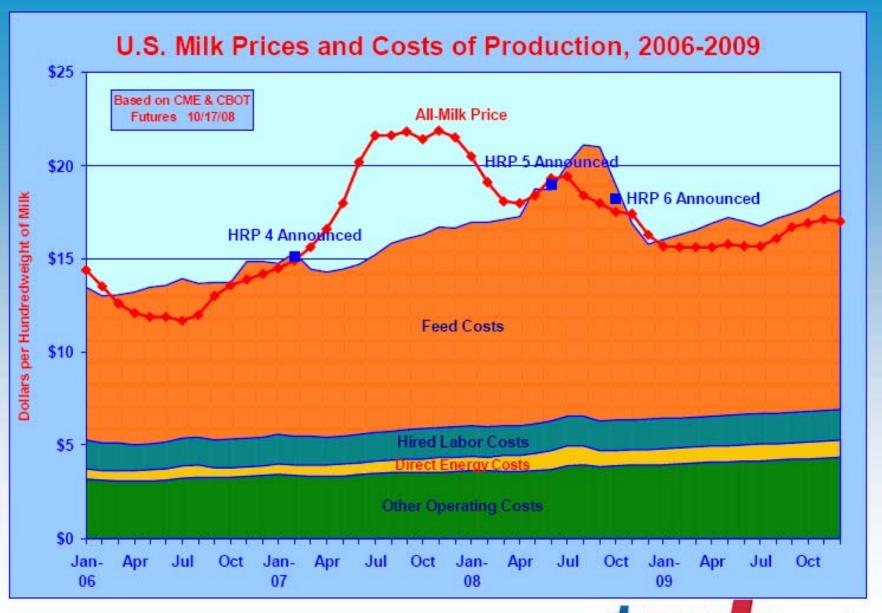


Dairy Situation and Outlook

uspa is projecting a drop in U.S. commercial dairy exports in 2009 equivalent to 2.3 billion pounds of milk





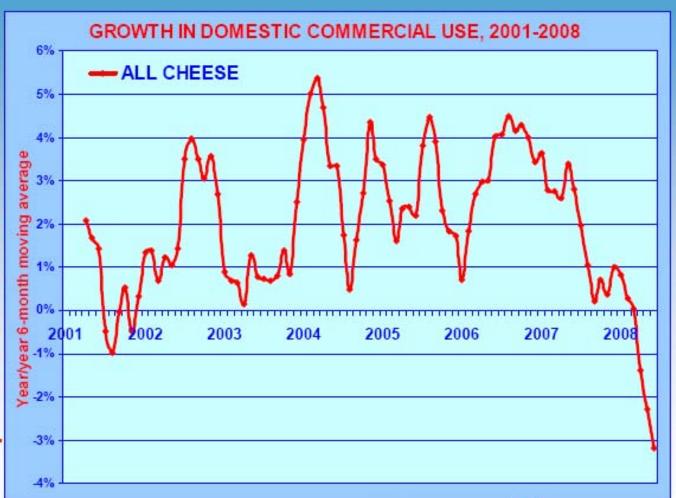




Dairy Situation and Outlook

Domestic cheese consumption is down, following many years of positive growth

Use is down both for American and especially for non-American types



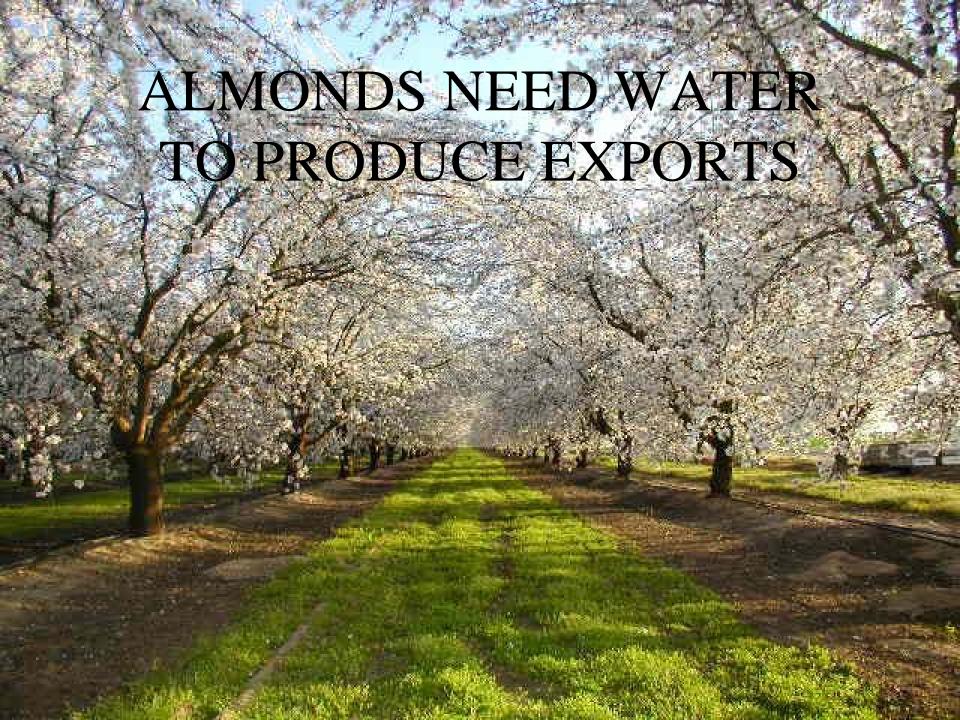




California Wine Community

Continued Growth – Deeply Rooted in Communities:

- \$45.4 billion 40% growth from '98-'02
- 207,550 jobs; 1,049 wineries; 4,805 growers
- 14.8 million visitors
- 92% of U.S. wine production
- Fourth largest in the world



Top-10 California Exports, 2006

Rank	Commodity	(\$mill)	% Exported
1	Almonds	1,899	71
2	Wine	736	17
3	Dairy Products	604	-
4	Cotton	554	12
5	Table Grapes	500	40
6	Walnuts	365	45
7	Oranges	359	38
8	Pistachios	287	43
9	Tomatoes (Processed)	286	14
10	Strawberries	273	12

Top 5 account for 50% of total CA exports

Source: Agricultural Issues Center

Global and National Competitiveness

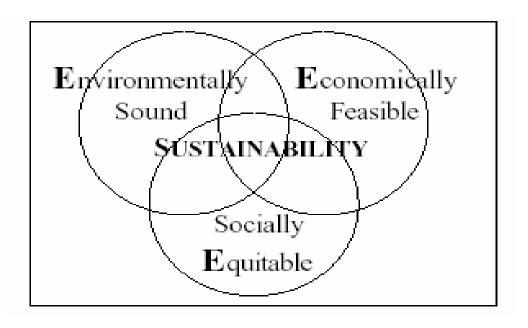
 California is losing the battle to be the low cost producer of many commodities.

California Ag Opportunities

- Innovations in Sustainability and Specialty Crops.
- Health benefits of ag products and parts.
- Changing demographics = New products.
- Food Service Chefs driving menu ideas.
- Drive for local and fresh products for food service.
- Environmental solutions and improvements.
- It's not waste it ispotential new revenue.
- Coordinate and collaborate research for solutions.

SUSTAINABILITY

The Code is conceived around the three "E"'s



GLOBAL SUSTAINABILITY CALIFORNIA AG IS STRATEGIC RESOURCE

